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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method, comprising:

requesting that an operating system [[to]] place a mobile computer system in a hibernation mode;
gathering a state of the mobile computer system, wherein the state includes contents of a central processing unit of the mobile computer system and contents of a main memory of the mobile computer system;

storing the system state to a first non-volatile memory cache of the mobile computer system,
wherein the first non-volatile memory cache has a storage capacity between 50-2000 megabytes;
and

storing the system state to a ~~second non-volatile memory hard disk drive~~ of the mobile computer system, which is coupled with the first non-volatile memory cache, via a transparent write-through process; ~~wherein the second non-volatile memory is internal to the computer system~~

putting the mobile computer system into the hibernation mode including putting the hard disk drive into the hibernation mode; and

waking the mobile computer system from the hibernation mode including loading the state from the first non-volatile memory cache instead of from the hard disk drive.

2. (Currently Amended) The method of claim 1, wherein the state of the ~~computer system~~ is gathered by the operating system.

3. (Currently Amended) The method of claim 1, ~~wherein the first non-volatile memory has a storage capacity between 50-2000 megabytes, wherein the second non-volatile memory~~ hard disk drive has a greater storage capacity than the first non-volatile memory cache.

4. (Currently Amended) The method of claim 3, wherein the first non-volatile memory cache is logically coupled to the ~~second non-volatile memory~~ hard disk drive.

Claims 5-19 (Cancelled)

20. (Currently Amended) A mobile computer system, comprising:

a central processing unit (CPU);

a main memory coupled to the CPU, wherein the main memory ~~stores~~ is to store data to be manipulated by the CPU;

a first non-volatile memory cache of the mobile computer system coupled to the main memory, wherein the data ~~of the main memory~~ is to be stored to the first non-volatile memory cache if the mobile computer system is placed in a hibernation mode, wherein the first non-volatile memory cache has a storage capacity between 50-2000 megabytes; and

~~a second internal non-volatile memory hard disk drive of the mobile computer system~~ coupled to the first non-volatile memory cache, wherein the ~~second non-volatile memory hard disk drive~~ has a greater storage capacity than the first non-volatile memory cache, ~~and wherein the first non-volatile memory has the same address configuration as the second internal non-volatile memory~~ wherein the data is to be restored from the first non-volatile memory cache instead of from the hard disk drive when the system is awoken from the hibernation mode.

21. (Currently Amended) The system of claim 20, wherein a state of the CPU is to be stored to the first non-volatile memory cache if the system is placed in ~~the~~ the hibernation mode.

Claim 22 (Cancelled)

23. (Currently Amended) The system of claim 21, wherein the data ~~of the main memory~~ and the state of the CPU is to be stored to the hard disk drive through a transparent write-through process ~~second non-volatile memory.~~

24. (Currently Amended) The system of claim 20, further comprising:

a driver coupled to the main memory and the first ~~non-volatile~~ non-volatile memory cache, wherein the driver is to write the ~~writes data of the main memory~~ to the first non-volatile memory cache.

Claims 25-29 (Cancelled)

30. (Currently Amended) An article comprising a machine readable medium having a plurality of machine readable instructions, ~~wherein that~~ when the instructions are executed by a machine processor, ~~the instructions cause a system~~ the machine to:

write contents of a central processing unit (CPU) to a ~~non-volatile~~ non-volatile memory cache of the machine that has a same address configuration as a hard disk drive of the machine ~~a mobile or desktop computer~~ prior to the machine being placed in a hibernation mode; ~~[[and]]~~

write data from a random access memory to the non-volatile memory cache of the machine prior to the machine being placed in the hibernation mode;

write the contents of the CPU to the hard disk drive of the machine using a transparent write-through process; and

initiate a load sequence from the non-volatile memory cache rather than from the hard disk drive after being awoken from the hibernation mode.

Claims 31-32 (Cancelled)

33. (Currently Amended) The article of claim ~~[[31]]~~ 30, ~~comprising a machine readable medium having a plurality of machine readable instructions, wherein when the instructions are executed by a processor, the instructions further cause a system to~~ further comprising instructions that when executed cause the machine to:

restore the CPU contents.

34. (Currently Amended) The method of claim 1, wherein the ~~second non-volatile memory~~ hard disk drive has the same address configuration as the first non-volatile memory.

35. (Cancelled)

36. (New) The mobile computer system of claim 20, wherein the first non-volatile memory cache has a same address configuration as the hard disk drive.